

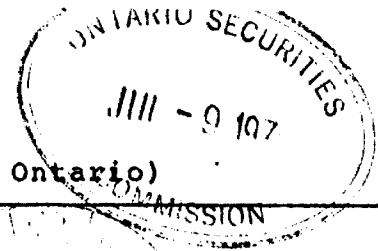
NO SECURITIES COMMISSION OR SIMILAR A
PASSED UPON THE MERITS OF THE SECURIT
REPRESENTATION TO THE CONTRARY IS AN



42A01NE0220 63.3240 TECK

010

PROSPECTUS
of
SPARK GOLD MINES LIMITED
(Incorporated under the laws of Ontario)



BEST EFFORTS OFFERING
400,000 COMMON SHARES *
Without par value.
Price: 50 cents per share

	<u>PRICE TO PUBLIC</u>	<u>AGENT'S COMMISSION *</u>	<u>PROCEEDS TO CORPORATION **</u>
PER SHARE	50¢	5¢	45¢
TOTAL	\$200,000	\$20,000	\$180,000

* The shares are offered by Goodwin, Harris & Co. Limited as Agent for the Corporation. There is no assurance that all or any of the shares will be sold.

** Before deducting the expenses of the issue, estimated at \$6,000. All funds received from subscribers will be deposited in trust with The Metropolitan Trust Company until 225,000 shares (\$112,500) have been sold, or until the expiration of 90 days from and including the date of commencement of the offering, whichever is earlier. If the 225,000 shares (\$112,500) are not sold within the said 90-day period, all amounts received in payment of subscriptions will be returned to the subscribers without deductions.

This offering will commence on the business day following the date of issue of a final receipt of the Ontario Securities Commission accepting this prospectus. Subscriptions will be received subject to rejection or allotment in whole or in part, and the right is reserved to close the subscription books without notice.

PURPOSE OF OFFERING

The purpose of this issue is to raise funds for the Corporation to defer its ordinary operating expenses and to pay the costs of carrying out exploration on its mineral prospects as recommended by its consulting engineer. See within under the headings "History and Business" and "Use of Proceeds".

THERE IS NO MARKET FOR THE SHARES OF THE CORPORATION.

THESE SHARES ARE SPECULATIVE.

These shares will be offered by Goodwin, Harris & Co. Limited, or by other registered securities dealers who may be appointed as agents from time to time.

AGENT:
GOODWIN, HARRIS & CO. LIMITED
Fourth Floor - 347 Bay Street
Toronto, Ontario

SHARE REGISTRAR AND TRANSFER AGENT:
THE METROPOLITAN TRUST COMPANY
353 Bay Street
Toronto, Ontario M5H 2T8

Teck Inv.



History and Business-----	1
Donated Shares-----	4
Capital Structure-----	5
Capitalization-----	5
Dividends-----	6
Auditors-----	6
Share Registrar and Transfer Agent-----	6
Offering-----	6
Escrowed Shares-----	8
Use of Proceeds-----	8
Purchaser's Statutory Right of Withdrawal and Recission-----	9
Principal Holders of Shares-----	11
Promoters-----	12
Management-----	12
Remuneration of Management-----	13
Interest of Management and Others in Material Transactions-----	13
Incorporation Within One Year - Preliminary Expenses-----	14
Material Contracts-----	14
Financial Statements-----	15

HISTORY AND BUSINESS

The full name of the Corporation is SPARK GOLD MINES LIMITED (hereinafter sometimes referred to as the "Corporation"). The head office of the Corporation is located at 420 Richmond-Adelaide Centre, 120 Adelaide Street West, Toronto, Ontario.

The Corporation was incorporated as a mineral exploration corporation under The Business Corporations Act (Ontario) by articles of incorporation dated April 16, 1974.

It is intended that the Corporation will carry on the business of a mining exploration corporation generally, exploring for mines and mineral lands and deposits.

The Corporation has one mineral prospect which it intends to subject to preliminary exploration. The property consists of six (6) unpatented mining claims located in Teck Township, Larder Lake Mining Division, Province of Ontario, and numbered L 342832 to L 342834, inclusive, and L 342855 to L 342857, inclusive. Claims L 342832 to L 342834, inclusive, were staked on October 2, 1972, and recorded on October 3, 1972. Claims L 342855 and L 342856 were staked on October 4, 1972, and recorded on October 5, 1972. Claim L 342857 was staked and recorded on October 26, 1972.

The Mining Act (Ontario) requires that the recorded holder of an unpatented claim shall within five years immediately following recording, perform or cause to be performed assessment work consisting of at least twenty (20) days during the first year, at least forty (40) days not later than two years from recording, at least forty (40) days not later than three years from recording at least forty (40) days not later than four years from recording, and at least sixty (6) days not later than five years from recording.

All of the claims are under an extension order of the Mining Commissioner dated May 1, 1974, extending the time to complete the required work on the claims for the first year to August 30, 1974. To protect the standing of the claims beyond August 30, 1974, the Corporation has agreed with the vendor of the claims that the vendor will, at the Corporation's expense, carry out or cause to be carried out on the claims all work so required.

The following is the summary of a report dated March 8, 1974, and made by William J. Riddell, P.Eng., with respect to the Corporation's mineral prospect in Teck Township, Larder Lake Mining Division. A copy of the full report of Mr. Riddell has been filed with the Ontario Securities Commission and is available for inspection at the offices of the Commission at 555 Yonge Street, Toronto, Ontario.

The Welsh property is composed of six mining claims located two miles west of the Town of Kirkland Lake, Ontario. The property is accessible by road from Kirkland Lake which is a municipality served by all modern means of transportation and communication.

The claims on the Welsh property were explored on surface by trenching and geological mapping between 1910 and 1940. During late late 1940 an underground cross-cut was extended north from the Macassa Mine into the easterly claim of the property. A quartz vein containing gold values was intersected and partially explored by drifting and underground drilling. Two drill holes from surface were also completed to test one claim. Two assessment holes were drilled on one claim in 1966 but no further exploration work is on record as being completed since that time. The six newly staked claims of the Welsh property must complete the assessment work requirements by August 30, 1974.

The Welsh property is located approximately 2,000 feet north of the main Kirkland Lake Break from which the majority of gold has been produced in the camp. A series of tightly folded Temiskaming sediments with numerous strike faults were intruded by syenite of Algomian age and fractures and fissures resulting from the cooling of the syenite became the zones where faults and fractures occurred when tectonic stresses were re-activated. The fractures and faults in the syenite were displaced and formed the main Kirkland Lake Break plus additional parallel structures. Vein quartz was injected into the fractures caused by the faulting and was followed by the deposition of gold as the final sequence of deposition. Post ore faulting occurred with further addition of quartz. The present surface is the result of erosion since the post ore faulting.

The syenite porphyry is the favourable host rock for gold bearing quartz veins in combination with its intersection by the main Kirkland Lake Break. Quartz veins containing gold are found in the other varieties of the syenite intrusive and also rarely in the Temiskaming sediments.

The Welsh property is interpreted to be underlain by a large mass of syenite porphyry and intersected by a subsidiary break (Narrows Break) which parallels the main Kirkland Lake Break 1500 feet to the north. Gold ore production from quartz veins associated with the Narrows Break has occurred at the Lake Shore Mine. On the Welsh property a vein was intersected which contains gold values and is interpreted to be related to the Narrows Break. Four surface drill holes on the Welsh property were unsuccessful in locating any commercially important gold bearing quartz veins.

Further exploration of the property is recommended employing 5200 ft. of underground drilling and 3200 ft. of surface drilling. The cost of the recommended programme is estimated to cost \$66,900. Further drilling after completion of the proposed programme will be dependent on the results obtained.

The Corporation has written permission from Willroy Mines Limited (Macassa Division) to rehabilitate the underground cross-cut on the 3000 foot level of the Macassa Mine in preparation for the proposed underground drilling program. This rehabilitative work is referred to in the report of William J. Riddell, P.Eng., the Corporation's engineer, who has allowed the sum of \$3,000 as the estimated cost thereof. In addition to the first estimate of \$3,000 there is to be paid by the Corporation a further sum of approximately \$3,260 to cover the cost of piping required to do the rehabilitative work. The assessment work requirements referred to on page 1 of this heading will be met by the Corporation performing this underground rehabilitation. The total cost of the rehabilitative work to be borne by the Corporation is estimated at \$6,260. Reference is hereby made to the heading "Use of Proceeds" in connection with these expenditures.

The aforesaid claims were acquired by the Corporation by purchase from George Stanley Welsh of Matatchewan, Ontario, as vendor, pursuant to an agreement dated May 16, 1974. The claims had originally cost the vendor \$500.

As consideration for the acquisition of the claims the Corporation paid the vendor the sum of \$6,000 and allotted and issued a total of 726,000 fully paid and non-assessable shares without par value of the Corporation, as follows:

To	George Stanley Welsh	-	315,900 shares
	Peter Murray Bourke	-	187,500 shares
	Francis Michael Burke	-	187,500 shares
	Bear Paw Mining Syndicate	-	<u>35,100 shares</u>
	Total	-	726,000 shares

By agreement dated March 12, 1974, Bear Paw Mining Syndicate transferred its 10 per cent interest in the claims to George Stanley Welsh. As consideration for such transfer, Mr. Welsh has directed the Corporation to allot and issue the said 35,100 shares of the total vendor consideration to Bear Paw Mining Syndicate. Peter Murray Bourke and Francis Michael Burke have received the said 187,500 shares each as consideration for their efforts and services in locating the Corporation's mineral prospect, and negotiating and finalizing the acquisition of same.

Certificates for a total of 726,000 shares are in escrow with the Share Registrar and Transfer Agent of the Corporation, in the name of George Stanley Welsh as to 315,900 shares, in the name of Peter Murray Bourke as to 187,500 shares, in the name of Francis Michael Burke as to 187,500 shares, and in the name of Bear Paw Mining Syndicate as to 35,100 shares, and on the terms set out under the heading "Escrowed Shares", to which heading reference is hereby made.

Peter Murray Bourke, 73 Chatsworth Drive, Toronto, Ontario, is the President and a Director of the Corporation and the Manager and a member of Bear Paw Mining Syndicate. Francis Michael Burke, 107 Roxborough Street East, Toronto, Ontario, is the Vice-President and a Director of the Corporation.

CAPITAL STRUCTURE

The capital of the Corporation consists of 3,000,000 shares of one class only, namely common shares without par value. All shares issued by the Corporation rank equally as to entitlement of dividends and voting power, each share carrying one vote. There are no indentures or agreements extant or proposed limiting the payment of dividends. At all meetings of shareholders of the Corporation two shareholders personally present constitute a quorum, and at such meetings resolutions may be voted upon by a show of hands unless a poll is demanded by a shareholder. Upon a show of hands every shareholder present in person and entitled to vote shall have one vote, but a shareholder represented by proxy shall have no vote. On a poll, every shareholder voting exercises one vote for each share held by him. In either case, the Chairman has a second or deciding vote in the event of a tie vote. There are no conversion, pre-emptive, liquidation or distribution rights or other special privileges or provisions whatsoever attaching to any of the shares in the capital of the Corporation. None of the presently issued and outstanding shares in the capital of the said Corporation are subject to call, having been issued as fully paid and non-assessable shares. None of the shares offered hereby will be subject to call or assessment of any kind.

CAPITALIZATION

<u>Designation of Security</u>	<u>Amount Authorized</u>	<u>Amount outstanding as at May 15, 1974 (See balance sheet attached)</u>	<u>Amount outstanding if all securities being issued are sold</u>
Common shares without par value	3,000,000 (\$1,500,000)	726,006 (\$7,266)	1,126,006 * (\$207,266)

* This figure assumes the sale of all 400,000 shares. The offering will be effective if the sale of a minimum of 225,000 shares is completed, realizing for the Corporation the sum of \$101,250 after deducting the sum of \$11,250 to cover the Agent's commission. If all 400,000 shares are sold the Corporation will realize the sum of \$180,000 after deducting the sum of \$20,000 to cover the Agent's commission.

DIVIDENDS

No dividends have been paid by the Corporation to date.

AUDITORS

The auditors of the Corporation are Laventhol, Krekstein, Horwath & Horwath, Chartered Accountants, 120 Adelaide Street West, Toronto, Ontario.

SHARE REGISTRAR AND TRANSFER AGENT

The Metropolitan Trust Company, 353 Bay Street, Toronto, Ontario, is the Share Registrar and Transfer Agent of the Corporation.

OFFERING

A. OFFERING

By an agreement dated May 16, 1974, and made between the Corporation, Goodwin, Harris & Co. Limited and The Metropolitan Trust Company, the Corporation appointed Goodwin, Harris & Co. Limited as its Agent for the Offering to the public in Ontario of 400,000 shares of the capital stock of the Corporation at a price of 50¢ per share, and has agreed to pay a commission to the Agent of 5¢ per share. The Metropolitan Trust Company is to act as Trustee in respect of the subscriptions received pursuant to the offering.

The agreement requires the Corporation to take all appropriate action under The Securities Act (Ontario) 1970, as amended throughout, in order to qualify for sale in Ontario the said 400,000 shares and also provides that:

- (a) the offering will commence on the business day following the date of the issue of a final receipt by the Ontario Securities Commission accepting this prospectus;

- (b) subscriptions must be received by the Agent for a minimum of 225,000 shares in order to release the sum of \$101,250 (after commissions) to the Corporation within 90 days of the commencement of the offering; and
- (c) all funds received upon subscription for shares will be deposited forthwith and held in trust by The Metropolitan Trust Company, 353 Bay Street, Toronto, Ontario, until either the total of 225,000 shares has been subscribed for and paid for, or a period of 90 days from the commencement of the offering shall have expired, whichever shall first occur. When the said 225,000 shares have been subscribed for and paid for, The Metropolitan Trust Company will cease to act as Trustee in respect of subscriptions for shares offered under this prospectus. If the said 225,000 shares are not subscribed for and paid for within 90 days of the commencement of the offering under this prospectus, the Trustee will return all funds received by it to subscribers without deduction of any kind and without interest.

The only persons having a greater than 5% interest in Goodwin, Harris & Co. Limited, 347 Bay Street, Toronto, Ontario, are Peter L. Robinson, 45 Hillholm Road, Toronto, Ontario, and Albert G. White, 23 Tresillian Road, Toronto, Ontario.

ESCROWED SHARES

Certificates representing an aggregate of 726,000 shares in the capital of the Corporation are held in escrow by The Metropolitan Trust Company, 353 Bay Street, Toronto, Ontario, for the benefit of the registered holders of such shares and those who shall from time to time become the registered holders of same. Reference is made to the heading "History and Business" for particulars with respect to the names of the present registered holders and their respective holdings. Such shares may be released from escrow pro rata among the holders thereof from time to time only with the prior written consents of the Ontario Securities Commission and the directors of the Corporation. Any dealings with the shares while in escrow will require the prior written consent of the Ontario Securities Commission.

The escrowed shares are subject to surrender for the benefit of the Corporation if the mineral prospect for which they were issued is abandoned upon the recommendation of an independent engineer or geologist.

<u>DESIGNATION OF CLASS</u>	<u>NUMBER OF SHARES HELD IN ESCROW</u>	<u>PERCENTAGE OF CLASS *</u>
Common shares without par value	726,000	64.48%

* Assumes the issue and distribution of all 400,000 shares being offered by this prospectus.

USE OF PROCEEDS

The net proceeds to be received by the Corporation from the sale of the minimum of 225,000 shares as hereinbefore referred to will be approximately \$101,250 after payment of the Agent's commission of \$11,250. The sum of \$101,250 will be further reduced by the costs of this issue estimated at \$6,000, and the sum of \$3,260, being the cost of piping materials required in connection with the rehabilitation work to be carried out by the Corporation and more particularly described under the heading "History and Business". Although the total cost of the rehabilitation work will be approximately \$6,260, a total of \$3,000 of the said \$6,260 is included in the estimated cost of the exploration programs recommended by William J. Riddell, P.Eng. If all of the 400,000 shares are sold the Corporation will realize approximately \$170,740 after deducting the estimated expenses of this issue and the Agent's commission of \$20,000. The funds which will be received by the Corporation will be used to defray ordinary operating expenses and to pay the costs of carrying out the exploration programs recommended by William J. Riddell, P.Eng., on the Corporation's Teck Township, Ontario, property, referred to under the heading "History and Business" and estimated at approximately \$66,900.

Up to \$4,200 will be paid to Robert Brown Corporate Services Limited, 420 Richmond-Adelaide Centre, 120 Adelaide Street West, Toronto, Ontario, during the first year of the Corporation's existence to cover head office rental and routine secretarial and accounting services. Reference is hereby made to the headings "Remuneration of Management" and "Incorporation Within One Year - Preliminary Expenses" for particulars. Robert Brown, 6 Zaharias Court, Willowdale, Ontario, the Secretary-Treasurer of the Corporation, is the President and sole beneficial owner of the shares of Robert Brown Corporate Services Limited.

Additionally, monies in the Corporation's treasury as available may be used to defray programs of acquiring, staking, examining, exploring and developing mining and/or oil and gas properties either alone or in concert with others, and to generally carry out exploration programs as opportunity and finances permit; provided, however, that no new properties will be acquired or expenditures made thereon without an amendment to the Corporation's prospectus being filed if the shares of the Corporation are still in the course of distribution to the public.

If all of the 400,000 shares are sold, the Corporation will not invest any of its surplus monies in other than a trustee type investment without the approval of its shareholders.

PURCHASER'S STATUTORY RIGHT OF WITHDRAWAL AND RESCISSION

A. Right of Withdrawal

An agreement of purchase and sale covering any of the shares hereby offered is not binding upon the purchaser if the Vendor from whom the purchaser buys same receives written or telegraphic notice evidencing the intention of the purchaser not to be bound by the agreement not later than midnight of the second day (exclusive of Saturdays, Sundays and holidays) after receipt of the prospectus of the Corporation or amended prospectus; provided the purchaser has not sold or transferred the said shares prior to the expiration of the said two-day period.

Receipt of the prospectus or amended prospectus by the party who is acting as agent or who thereafter commences to act as agent of the purchaser and receipt of the said notice by a party who acted as agent of the vendor of the said shares shall be receipt by the purchaser and vendor respectively.

B. Right of Rescission

A purchaser of any of the shares hereby offered has a right to rescind his contract to purchase while he is still the owner of the said shares if the prospectus of the Corporation and any amending prospectus received by such purchaser, as of the date of receipt, contains an untrue statement of a material fact or omits to state a material fact necessary in order to make any statement contained therein not misleading; provided, however, such right of rescission will not apply:

- (a) if the untruth or fact of omission was unknown to the Corporation and to the Agent and could not have been known in the exercise of reasonable diligence;
- (b) if such statement or omission is disclosed in an amended prospectus and same has been received by the purchaser;
- (c) if the purchaser knew the untruth of the statement or knew of the omission at the time of purchase.

Receipt of a prospectus or an amended prospectus by a party who is acting as agent or who thereafter commences to act as agent of the purchaser shall be receipt by the purchaser. No action shall be commenced after the expiration of ninety days from the last to occur of the receipt of the prospectus or the date of the contract.

The full text of the respective statutory provisions summarized above is contained in Sections 64 and 65 of The Securities Act, 1970, as amended throughout.

PRINCIPAL HOLDERS OF SHARES

A. The following sets forth the principal holders of shares of the Corporation, being the owners of record or known by the Corporation to own beneficially, directly or indirectly, more than 10% of the presently issued shares (based on a total of 1,126,006 shares referred to under the heading "Capitalization"):

<u>NAME AND ADDRESS</u>	<u>DESIGNATION OF CLASS</u>	<u>TYPE OF OWNERSHIP</u>	<u>NUMBER OF SHARES OWNED</u>	<u>PERCENTAGE OF CLASS</u>
GEORGE STANLEY WELSH Matatchewan Ontario	Common shares without par value	Record and Beneficial	315,900	28.05%
PETER MURRAY BOURKE 73 Chatsworth Drive Toronto, Ontario	Common shares without par value	Record and Beneficial	187,501	16.65%
FRANCIS MICHAEL BURKE 107 Roxborough St. E. Toronto, Ontario	Common shares without par value	Record and Beneficial	187,501	16.65%

The following sets forth the percentage of shares of the Corporation beneficially owned, directly or indirectly, by all directors and senior officers of the Corporation as a group (based on a total of 1,126,006 shares referred to under the heading "Capitalization"):

<u>DESIGNATION OF CLASS</u>	<u>PERCENTAGE OF CLASS</u>
Common shares without par value	33.30%

PROMOTERS

Peter Murray Bourke, 73 Chatsworth Drive, Toronto, Ontario, the President and a Director of the Corporation and the Manager and a member of Bear Paw Mining Syndicate, Francis Michael Burke, 107 Roxborough Street East, Toronto, Ontario, the Vice-President and a Director of the Corporation, George Stanley Welsh, Matatchewan, Ontario, the Vendor to the Corporation of its mineral prospect in Teck Township, Larder Lake Mining Division, Ontario, and Bear Paw Mining Syndicate, 73 Chatsworth Drive, Toronto, Ontario, referred to in this prospectus, are the promoters of the Corporation.

MANAGEMENT

The names and home addresses of the directors and officers of the Corporation, the positions in the Corporation presently held by them and the principal occupation held by them in the last five years are:

<u>NAME AND ADDRESS</u>	<u>POSITION</u>	<u>OCCUPATION</u>
PETER MURRAY BOURKE 73 Chatsworth Dr. Toronto, Ontario	President and a director	President, P.M. Bourke Limited
FRANCIS MICHAEL BURKE 107 Roxborough St. E. Toronto, Ontario	Vice-President and a director	Since Jan., 1973, a Mortgage Representative; prior thereto a Registered Representative with Gardiner Watson Limited from May, 1969 to November, 1970; with Thomson, McKinnon Auchincloss Inc. from November, 1970 to April, 1971; with Yorkton Securites Limited in May, 1971; and with Charles King & Company from June, 1971 to July, 1973.
ROBERT BROWN 6 Zaharias Court Willowdale, Ontario	Secretary- Treasurer	President, Robert Brown Corporate Services Limited
GORDON WILLIAM McINTOSH 3470 Riverspray Cresc. Mississauga, Ontario	Director	Superintendent with Majestic Wiley Contractors Ltd.

JAMES HARLING
126 Government Rd.W.
Kirkland Lake, Ontario

Director

Consulting mining engineer.

IRWIN ARTHUR WALLACE
2500 Bathurst Street
Apt. 508
Toronto, Ontario

Director

Notary Public, Insurance
and Real Estate Broker for
the past five years; director
and/or officer of Xtra
Developments Inc. and Calcar
Development Inc.

REMUNERATION OF MANAGEMENT

No director or senior officer of the Corporation has received any remuneration since incorporation of the Corporation. Officers and directors are entitled to receive \$50.00 for each meeting attended by them.

The Corporation will pay up to \$350.00 monthly to Robert Brown Corporate Services Limited, 420 Richmond-Adelaide Centre, 120 Adelaide Street West, Toronto, Ontario, to cover head office rental and routine secretarial and accounting services. Robert Brown, the Secretary-Treasurer of the Corporation, is the President and the sole beneficial owner of the shares of Robert Brown Corporate Services Limited.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Reference is hereby made to the headings "History and Business" and "Escrowed Shares". George Stanley Welsh, Matatchewan, Ontario, named in this prospectus as one of the promoters of the Corporation, is the vendor to the Corporation of its mineral prospect located in Teck Township, Larder Lake Mining Division, Province of Ontario. As vendor consideration therefor, Mr. Welsh has received the sum of \$6,000 and 315,900 shares of a total of 726,000 vendor shares. At the direction of Mr. Welsh, the Corporation has allotted and issued the remaining 410,100 vendor shares as follows:

To Peter Murray Bourke	-	187,500 shares
Francis Michael Burke	-	187,500 shares
Bear Paw Mining Syndicate	-	<u>35,100 shares</u>
Total	-	410,100 shares

Certificates for the 726,000 vendor shares are held in escrow as provided under the heading "Escrowed Shares".

Peter Murray Bourke, 73 Chatsworth Drive, Toronto, Ontario, named in this prospectus as a promoter of the Corporation, is the President and a director of the Corporation. Francis Michael Burke, 107 Roxborough Street East, Toronto, Ontario, also named in this prospectus as a promoter of the Corporation, is the Vice-President and a director of the Corporation. Bear Paw Mining Syndicate, 73 Chatsworth Drive, Toronto, Ontario, of which Peter Murray Bourke is the Manager and a member, is also named in this prospectus as a promoter of the Corporation.

INCORPORATION WITHIN ONE YEAR - PRELIMINARY EXPENSES

The estimated amount of preliminary expenses for the first year of the Corporation's existence is \$4,200 for administration, exclusive of the cost of this offering, and \$66,900 for the exploration program recommended by the Corporation's engineer and referred to under the heading "History and Business".

MATERIAL CONTRACTS

The only material contracts entered into by the Corporation to date, copies of which may be inspected at the head office of the Corporation during normal business hours while the shares offered hereunder are in the course of public distribution, are as follows:

1. Agreement made May 16, 1974, between George Stanley Welsh, as vendor, and the Corporation, covering the acquisition of the Corporation's mineral prospect in Teck Township, Larder Lake Mining Division, Province of Ontario, and referred to under the heading "History and Business".
2. Agreement made May 16, 1974, between the Corporation, Goodwin, Harris & Co. Limited and The Metropolitan Trust Company, and referred to under the heading "Offering".

LAVENTHOL KREKSTEIN HORWATH & HORWATH

CHARTERED ACCOUNTANTS
700 RICHMOND ADELAIDE CENTRE
120 ADELAIDE STREET WEST
TORONTO 1, ONTARIO
TELEPHONE: 416-864-3200
CABLE: HORWINTAS

Represented throughout the world

AUDITORS' REPORT

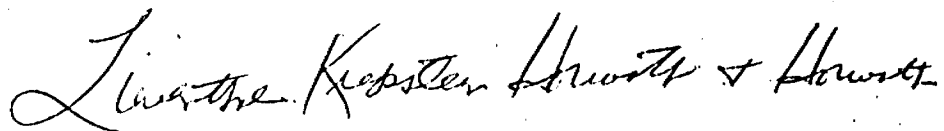
To the Directors of
Spark Gold Mines Limited.

We have examined the balance sheet and pro forma balance sheet of Spark Gold Mines Limited as at May 15, 1974 and in connection therewith reviewed such supporting evidence as we considered necessary in the circumstances.

In our opinion:

- (a) The accompanying balance sheet presents fairly the financial position of the Corporation as at May 31, 1974;
- (b) The accompanying pro forma balance sheet presents fairly the financial position of the Corporation as at May 31, 1974 after giving effect to the transactions set forth in Note 1;

all in accordance with generally accepted accounting principles.



LAVENTHOL KREKSTEIN HORWATH & HORWATH

Toronto, Ontario,
May 16, 1974

Chartered Accountants.

SPARK GOLD MINES LIMITED
(Incorporated under the laws of Ontario)

BALANCE SHEET AND PRO FORMA BALANCE SHEET

MAY 15, 1974

ASSETS	Pro Forma Balance Sheet (Note 1)	Balance Sheet
Current:		
Cash	\$ 86,539	\$ 6
Mining claims:		
6 unpatented claims in Teck Township, Larder Lake Mining Division, Ontario, at valuation placed by the Board of Directors on 726,000 shares of capital stock to be issued therefor plus \$6,000 to be paid in cash	<u>13,260</u>	<u>13,260</u>
Deferred expenditures (Note 2):		
Organization expenses, estimated	6,000	6,000
Engineer's fees and expenses	<u>2,717</u>	<u>2,717</u>
	<u>8,717</u>	<u>8,717</u>
	<u>\$108,516</u>	<u>\$21,983</u>
	<u>=====</u>	<u>=====</u>
LIABILITIES		
Current:		
Due to vendor of mining claims	\$ -	\$ 6,000
Accounts payable	-	2,717
Estimated liabilities for organization expenses	-	6,000
	<u>-</u>	<u>14,717</u>
	<u>=====</u>	<u>=====</u>
SHAREHOLDERS' EQUITY		
Capital stock:		
Authorized:		
3,000,000 shares, par value (maximum consideration \$1,500,000)		
Allotted, to be issued (Note 3):		
Actual - 726,006 shares	-	7,266
Pro forma - 951,006 shares	119,766	-
Deficit, commission on sale of capital stock	<u>11,250</u>	<u>-</u>
	<u>108,516</u>	<u>7,266</u>
	<u>\$108,516</u>	<u>\$21,983</u>
	<u>=====</u>	<u>=====</u>

See accompanying notes.

Approved on behalf of the Board of Directors:

Francis Michael Baulk.....(Director)
Stewart J.(Director)

SPARK GOLD MINES LIMITED

NOTES TO FINANCIAL STATEMENTS

MAY 15, 1974

1. Pro forma balance sheet:

The pro forma balance sheet gives effect to the following transactions as if they had occurred on May 15, 1974:

- (a) the issue and sale of 225,000 shares of capital stock for \$112,500 (50¢ per share) pursuant to an agency agreement dated May 16, 1974. If all these shares are not subscribed and paid for within 90 days from the commencement of the offering, all monies will be returned to the subscribers.
- (b) the payment of agent's commissions in the amount of \$11,250 for the sale of the above mentioned 225,000 shares at 5¢ per share.
- (c) the payment of all liabilities amounting to \$14,717.

The agency agreement referred to above provides for the agent to offer for sale a maximum of 400,000 shares to net the corporation \$180,000, after deduction of \$20,000 agent's commission. The pro forma balance sheet gives effect only to the sale of the minimum number of shares required by the agency agreement as explained above.

2. Deferred expenditures:

These expenditures represent actual and estimated expenses incurred from incorporation (April 16, 1974) to May 15, 1974.

3. Capital stock:

The following is an analysis of the allotted (to be issued) share capital as at May 15, 1974 and the pro forma issued capital:

	<u>Number of shares</u>	<u>Value</u>
For cash	6	\$ 6
For mining claims	<u>726,000</u>	<u>7,260</u>
Total shares allotted	726,006	7,266
Pro forma:		
For cash-current offering	<u>225,000</u>	<u>112,500</u>
Total per pro forma balance sheet	<u>951,006</u>	<u>\$119,766</u>

There are no other material facts.

DATED the 16th day of May, 1974.

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part VII of The Securities Act, and the regulations thereunder.

PETER MURRAY BOURKE
Chief Executive Officer

ROBERT BROWN
Chief Financial Officer

ON BEHALF OF THE BOARD OF DIRECTORS:

FRANCIS MICHAEL BURKE
Director

GORDON WILLIAM McINTOSH
Director

PROMOTERS:

Francis Michael Burke

Peter Murray Bourke

George Stanley Welsh

BEAR PAW MINING SYNDICATE

Per: _____

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part VII of The Securities Act, and the regulations thereunder.

A G E N T

GOODWIN, HARRIS & CO. LIMITED

Per: _____

Teck Sup



42A01NE0220 63.3240 TECK

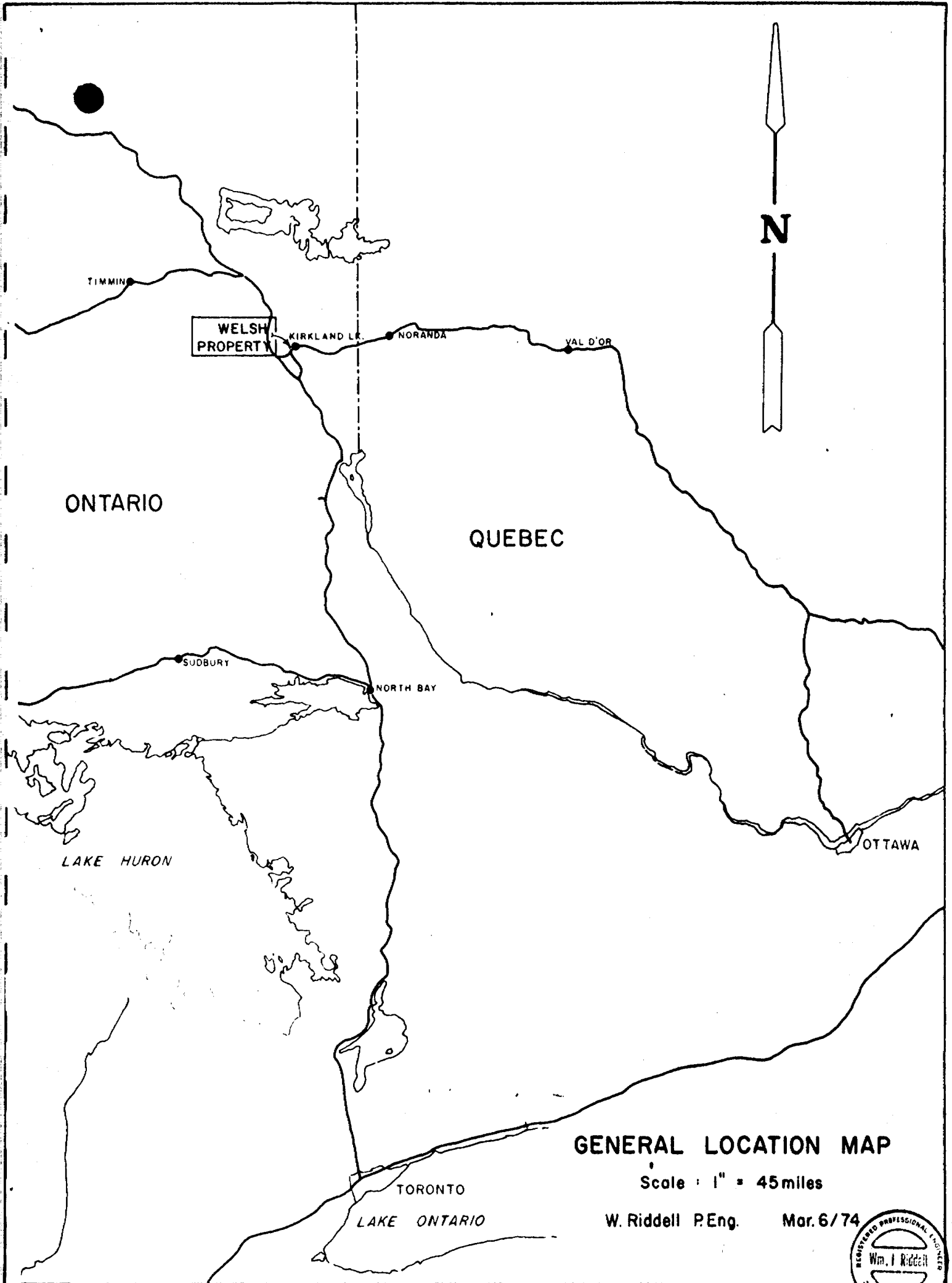
020

A
R E P O R T
ON THE
GEOLOGY AND POTENTIAL FOR THE DISCOVERY OF GOLD
DEPOSITS WITHIN THE WELSH PROPERTY
Kirkland Lake, Ontario



Willowdale, Ontario, Canada
March 8, 1974

W. J. Riddell, P. Eng.



WELSH
PROPERTY

TIMMIN

KIRKLAND LK.

NORANDA

VAL D'OR

ONTARIO

QUEBEC

SUDBURY

NORTH BAY

LAKE HURON

OTTAWA

TORONTO

LAKE ONTARIO

GENERAL LOCATION MAP

Scale : 1" = 45 miles

W. Riddell P.Eng.

Mar. 6/74



TABLE OF



42A01NE0220 83.3240 TECK

020C

General Location Map	Frontispiece
Summary	(i)
Introduction	1
Description of Property	3
Access	5
History	6
Geology	10
Regional Geology	10
Table of Formations	12
Structural Geology	14
Economic Geology	16
Welsh Property	20
Geology and Mine Workings (Welsh Property)	Following Page 19
Development Assay Plan (3000 ft level) (Welsh Property)	Following Page 22
Conclusions	24
Recommendations	27
Cost Estimate	30
Certificate	31
Bibliography	32

S U M M A R Y

The Welsh property is composed of six mining claims located two miles west of the town of Kirkland Lake, Ontario. The property is accessible by road from Kirkland Lake which is a municipality served by all modern means of transportation and communication.

The claims on the Welsh property were explored on surface by trenching and geological mapping between 1910 and 1940. During late 1940 an underground cross-cut was extended north from the Macassa Mine into the easterly claim of the property. A quartz vein containing gold values was intersected and partially explored by drifting and underground drilling. Two drill holes from surface were also completed to test one claim. Two assessment holes were drilled on one claim in 1966 but no further exploration work is on record as being completed since that time. The six newly staked claims of the Welsh property must complete the assessment work requirements by May 31, 1974.

The Welsh property is located approximately 2000 feet north of the main Kirkland Lake Break from which the majority

of gold has been produced in the camp. A series of tightly folded Temiskaming sediments with numerous strike faults were intruded by syenite of Algomian age and fractures and fissures resulting from the cooling of the syenite became the zones where faults and fractures occurred when tectonic stresses were re-activated. The fractures and faults in the syenite were displaced and formed the main Kirkland Lake Break plus additional parallel structures. Vein quartz was injected into the fractures caused by the faulting and was followed by the deposition of gold as the final sequence of deposition. Post ore faulting occurred with further addition of quartz. The present surface is the result of erosion since the post ore faulting.

The syenite porphyry is the favourable host rock for gold bearing quartz veins in combination with its intersection by the main Kirkland Lake Break. Quartz veins containing gold are found in the other varieties of the syenite intrusive and also rarely in the Temiskaming sediments.

The Welsh property is interpreted to be underlain by a large mass of syenite porphyry and intersected by a subsidiary break (Narrows Break) which parallels the main Kirkland Lake Break 1500 feet to the north. Gold ore production from quartz veins associated with the Narrows Break has occurred at the Lake Shore Mine. On the Welsh property a vein was inter-

sected which contains gold values and is interpreted to be related to the Narrows Break. Four surface drill holes on the Welsh property were unsuccessful in locating any commercially important gold bearing quartz veins.

The combination of a syenite porphyry mass, an interpreted 'Break' from which production has occurred in the past, plus the intersection of a gold bearing vein at the 3000 ft level, combine to make the Welsh property one of the most attractive areas for exploration in the Kirkland Lake camp.

Further exploration of the property is recommended employing 5200 ft of underground drilling and 3200 ft of surface drilling. The total cost of the recommended programme is estimated to cost \$66,900.

I N T R O D U C T I O N

The Welsh property in the Kirkland Lake district of Northern Ontario is comprised of six claims immediately north of the Macassa and Tegren Mine both of which are presently mining gold ore. There has been no surface indication of gold bearing material on the Welsh property but on the 3000 foot level a gold bearing vein has been partially explored.

The Welsh property is presently in good standing although an extension order to May 31, 1974 has been granted to complete the required assessment work on the six claims.

This report provides an outline of the location, access and geology of the area of interest with a resume of the exploration work carried out in the past.

A regional description of the geology is included followed by an outline of the local geology both within the Kirkland Lake camp and on the Welsh property in particular. An economic appraisal is also made of the other gold properties in the district.

Conclusions reached by the writer are based on a

study of the existing data concerning the Kirkland Lake camp plus an examination of various reports completed in the past on the Welsh property itself. This study was supplemented by a visit to Kirkland Lake on February 28th and March 1st, 1974 to discuss with officials of the Macassa Mine the technical aspects of the Welsh property. Discussions were also held with the resident geologist of the Department of Natural Resources of Ontario, Mr. Lovell, and also with Mr. Jim Harling the retired chief geologist of the Lake Shore Mine.

The conclusions were also supplemented by the experience of the writer from limited gold mining activities at the Kerr Addison Gold Mines Limited in 1945 and the Pickle Crow Gold Mines Limited in 1948.

The recommendations are briefly stated together with a cost estimate for a preliminary surface and underground diamond drill programme.

Illustrations include a general location map, a more detailed location map with generalized geology in the area of the Welsh claim, plus an assay map of the underground workings on one claim within the property. A bibliography is also included of the reports studied during preparation of this report.

DESCRIPTION OF PROPERTY

The Welsh property comprises a group of six contiguous mining claims abutting the north boundary of the Macassa Mine and Tegren Mine properties in the Kirkland Lake district of Northern Ontario. The claims are within two miles of the town of Kirkland Lake and are crossed by an all weather road (Goldthorpe), a power line owned by Ontario Hydro, and by the Ontario Northland Railroad.

The claim numbers and recording dates are as follows:

<u>Number</u>	<u>Recording Date</u>
342856 (formerly 6014)	October 5, 1972
342855 (formerly 6013)	October 5, 1972
342834 (formerly 1340)	October 3, 1972
342833 (formerly 1342)	October 3, 1972
342832 (formerly 1343)	October 3, 1972
342857 (formerly 1223)	October 26, 1972

Title to the claims was ascertained by the writer at the Mine Recorder's office in Toronto and at the Land Titles' Office of Teck Township in Kirkland Lake, Ontario.

The claims were staked by Gerard Bastarache on the dates recorded above and all interest in the claims was transferred to George S. Welsh on March 15, 1973. An order of extension for completion of the assessment work requirements was granted by the Ontario Mining Commissioner on October 1, 1973 allowing up to and including May 31, 1974 for submission.

Surface rights on all six claims are held by the municipality of Kirkland Lake.

A C C E S S

The claims on the Welsh property are easily accessible from the town of Kirkland Lake by road. Locally, however, large areas of swamp makes the claims difficult to traverse except during the winter months.

The town of Kirkland Lake is a well developed community located on a paved highway and served by excellent rail and air facilities. Communication facilities are fully developed and electric power is readily available. The climate in the Kirkland Lake region is typical of Northern Ontario with warm summer, cold winter and fairly abundant snow during the winter months.

H I S T O R Y

No commercial production of gold ore has occurred on the Welsh claims. During the early days of the Kirkland Lake camp some trenching was performed on the claims but no technical records exist of this work. Four of the claims were patented in 1913 and the remainder in 1920.

In 1934 Mr. D. A. Campbell examined four of the Welsh claims on behalf of the Erie Canadian Mines Ltd., a subsidiary of Sylvanite Gold Mines Ltd. The examination was confined to Claims 342857, 342834, 342833 and 342832 and included the taking of a number of grab samples from the old trenches on the property, which were filled with water at that time. The results of this work was not encouraging and it is believed that the option held by Erie was dropped.

The next record of the Welsh property is their inclusion in a group of fourteen claims which made up the holdings of the Casakirk Gold Mines Ltd., an Ontario company incorporated in 1936. No technical records exist of any work performed by the Casakirk on the Welsh property until 1939 when G.B. Langford examined the whole property for the Company. Lang-

ford reported that 3000 ft of trenching had been performed previous to the incorporation of Casakirk by A. W. Grierson. In addition, a 127 ft shaft had been sunk on the claim immediately to the north of the Welsh Claim 342832. Further trenching was performed by Casakirk in 1937 under the direction of A. P. Dunbar. Technical records of this work were not available to Langford or to the writer. At the same time as Langford's examination the Ontario Department of Mines was making a geological examination of the area under the direction of Wm. Gerrie and a map of the work was included with Langford's report. It is also incorporated in the Ontario Department of Mines Map No. 1945-1 at a scale of 1" = 1000 ft which was published in 1945.

Langford's report was directed to the possibility of discovering gold bearing material connected with an east-west striking 'break' which had been defined indefinitely in other parts of the camp to the east. Langford recognized the geological gamble in attempting to locate this break and possible gold bearing rock connected to it; but he considered it worthwhile to investigate the situation and recommended a drill programme comprising 5000 ft of drilling in ten holes. There is no record of this proposed drilling having been completed.

In 1940 the Casakirk property was optioned by Hollinger Gold Mines Ltd. and in partnership with Macassa Mines Ltd. a cross-cut was driven on the 3000 ft level of the Macassa

Mines to the north, a distance of 1920 ft, of which 720 ft actually penetrated Claim 342832, the most easterly of the Welsh property. Wm. Ward of Macassa Mines is of the opinion that a strong break intersected in the cross-cut at the boundary of the Macassa-Casakirk property is the Narrows Break which has been identified by underground workings in the adjacent Teck-Hughes and Lake Shore Mines. Immediately (45 ft) inside the boundary of the Casakirk property a vein structure was intersected and a total of 235 ft of drifting and cross-cutting was performed on this vein both east and west of the main cross-cut. Gold values were obtained over narrow widths throughout the workings. Three underground drill holes (two horizontal and one down hole) intersected the vein and also obtained further narrow gold intersections. In addition a fourth hole was drilled to the north from the end of the cross-cut and intersected two other breaks. No gold intersections were obtained in the fourth hole.

A report by J. K. Gustafson of Hollinger was submitted, reporting on the vein structure on Claim No. 342832. The report recommended the completion of the cross-cut and the underground drilling and drifting described above. The report also recommended drilling four surface holes to attempt to intersect the discovered vein on Claim 342832 and also to intersect the possible northerly 'break' or 'breaks' as originally recommended by Langford in 1939.

A second report by Gustafson dated May 24, 1941 reported on the results of the work recommended in his previous report. The lack of mineable widths of ore in the vein on which drifting was performed and the absence of any gold bearing structures to the north of the property prompted Gustafson to recommend that the underground exploration should cease. He also recommended that only two surface drill holes designed to intersect a northly 'break' be completed and that the other two holes originally recommended should be abandoned. The two recommended surface drill holes were completed without intersecting any important gold values and the option on the Casakirk property was subsequently dropped. Casakirk finally surrendered its charter in 1965 and the patented claims of the Company came open for staking. Claim 342857 was acquired by the Tegren Mine and in 1966 two short drill holes (107 ft and 111 ft) were completed from one location at the southwest corner of the claim. The two holes were completed for assessment purposes only and produced no pertinent geological information.

Since 1966 no further recorded work was performed on the claims. The claim now recorded as No. 342857 came open in 1972 and was staked by Gerard Bastarache along with the five other claims to the north which make up the Welsh property on which this report is based.

G E O L O G Y

Regional Geology

The regional geology of the Kirkland Lake camp has been well documented in numerous publications from 1920 to 1950. In general the geological setting can be summarized as follows:

- a) Precambrian rocks of Keewatin age are the oldest rocks identified in the camp. These rock formations are of volcanic origin and are comprised of andesites, basalts and pillow lavas.
- b) Erosion of the Keewatin volcanics was followed by the deposition of Temiskaming sediments comprised mainly of tuffs, conglomerates and greywackes. Tectonic mountain building followed deposition of the sediments with the development of tight folding and many strike-slip faults.
- c) An elongated composite granitic stock of Algoman age intruded the Temiskaming sediments along their strike and at a slightly steeper angle. The stock is primarily made up of augite syenite, syenite and syenite porphyry.
- d) Cooling of the intrusive created joint sets, fractures and

faults and upon renewal of tectonic stresses thrust displacement occurred along the fracture and fault zones.

- e) At the same time as the displacement took place along the fault zone, vein quartz was injected into the fractures, followed by continued movement along the whole zone of weakness opening up the channelways and producing the permeability for the final sequence of deposition bearing gold, silver, and tellurides. Quartz diabase dykes intruded the zone following the deposition of the mineralization.
- f) Continual re-adjustment of the intruded syenite mass resulted in further strike and transverse faulting with some further introduction of quartz and calcite along the fractures.
- g) Erosion of the surface continued until the present surface was formed. In tabular form the rock types, structural deformation and ore deposition are as follows:

TABLE OF FORMATIONSPrecambrian

Post ore faulting

Post Algoman
Quartz diabase

- Intrusive Contact -

Gold deposition
Wall rock alteration
Pre ore faultingAlgoman
Syenite porphyry
Syenite
Augite Syenite (Lamprophyre)

- Intrusive Contact -

Folding

Timiskaming
Tuff
Conglomerate and greywacke

- Great Unconformity -

Folding

Keewatin
Andesite, basalt, pillow lavaLocal Geology

The Keewatin volcanic rocks lie to the north and south of the Kirkland Lake camp and are comprised primarily of tuffs and altered volcanics. They have not been identified

In any of the underground workings of the mines in the camp except in core from long drill holes drilled to the north.

The conglomerates of Temiskaming age have been identified in all mines in the camp and the tuffs and greywackes occur in most. Gold-bearing quartz veins occur in the sediments on rare occasions but generally their gold content is lower than similar veins occurring in the Algomian intrusive.

The Algomian intrusives are the favoured host rock for quartz veins containing gold in commercial quantities. Structure is perhaps the most important control in the deposition of the gold within the quartz veins, however, the intrusive rocks are of equal importance as by far the greatest amount of gold ore has been mined from veins located within these rocks.

At one time it was believed that the syenite porphyry was the exclusive host rock for gold bearing veins but as the camp developed ore was mined from all three varieties of the syenite stock; namely, the augite syenite, the syenite and the syenite porphyry.

The compositional distribution of the syenite stock is such that the syenite porphyry occurs mainly toward the east end of the camp; a mixture of syenite and augite syenite occurs near the central part; and augite syenite is found in the west cen-

tral portion; and, finally, at the extreme west end, the rock is primarily syenite. At the west end additional syenite porphyry has been identified at depth and also in masses to the north and south of the main Kirkland Lake Break along which most mines are located.

The post-Algoman quartz diabase dykes are not numerous and occur only rarely in some of the workings.

Structural Geology

The most important local structural feature is the Kirkland Lake Break or Main Break which can be traced as a continuous fault structure over a strike length of about 22,000 ft. Most mines in the Kirkland Lake camp produced their gold ore from quartz veins related directly to this structure.

The Main Break is a composite thrust faulted structure which strikes N 68E and dips steeply to the south. It is not a continuous structure as many branches and offshoots occur which creates in both plan and section a 'braided' type appearance.

At the west end of the camp, where the greatest movement on the fault has been identified, only a few subsidiary structures, or offshoots, from the Main Break have resulted in gold ore production. Recently however in the Tegren-

Macassa working a subsidiary structure has been identified and is presently the source of a portion of the ore produced from the Tegren property. Exploration is continuing to trace this structure both horizontally and vertically.

At the east end of the camp the subsidiary structures from which gold ore has been extracted extends over a width of 1200 to 1500 feet.

Other breaks paralleling the Main Break have been identified to the north. Exploration of these structures has not yet been undertaken in a rigorous and systematic manner. Approximately 1500 feet north of the Main Break a strong break has been identified and is now referred to as the Narrows Break.

Underground workings at the Lake Shore-Teck-Hughes property have intersected this Break and on the Lake Shore property actual production resulted from stopes developed in quartz veins associated with the structure. The Narrows Break has also been identified in a preliminary fashion in a cross-cut drive for the Macassa Mine into the most easterly claim of the Welsh property.

Further to the north of the Narrows Break other breaks have been identified by drilling from the Macassa cross-cut on the Welsh property, and from the Teck-Hughes Mine.

At Lake Shore, the cross-cut which intersected the Narrows Break was extended north and intersected a break 3000 ft north of the Main Break. No production was undertaken from this break although some drifting was undertaken to explore the structure. The cross-cut was extended another 600 feet north where another weak break was identified but not explored.

Post-ore strike faults dip to the north in most cases in contrast to the pre-ore faults, fractures and breaks which dip to the south. Some of the post-ore faults contain small amounts of mineralization in the form of sulphides but in no case has gold been identified. Some north dipping gold bearing zones have been identified but these are rare and can be attributed either, to local bends in the south dipping Main Break or to small fracture zones connected directly with the cooling of the syenite stock before injection of the gold bearing solutions.

Economic Geology

The wealth extracted from the Kirkland Lake camp is well documented in numerous publications. Since the first production commenced in 1913 at the Toburn Mine approximately 25,000,000 ounces of gold have been produced from seven main mines plus a number of other small mines.

The main production has occurred from above the

3000 ft level and almost exclusively from veins associated with the Main Break. Only at the west end of the camp at the Macassa, Tegren and Kirkland Lake Gold properties has the majority of production been extracted from below the 3000 ft level. The present workings at the Macassa and Tegren properties are located at depths of 5000 to 6000 ft.

Production from other structures or breaks, exclusive of the Main Break, has been virtually non-existent. Exploration in areas north and south of the Main Break has never been undertaken in a systematic manner employing the newer exploration techniques and advanced geological knowledge available today.

The average grade of the ore produced from the Kirkland Lake camp is approximately 0.5 oz of gold per ton. Presently, under current gold prices, a grade of 0.20 to 0.25 oz per ton is required in the deep workings of Macassa and Tegren properties to make mining a profitable venture. It is true of course that double hoisting is required and that the mine installation is old however it must also be remembered that few amortization costs are chargeable to the operation.

It is the opinion of the writer that gold bearing material discovered above the 3000 foot level in the Kirkland Lake camp, and requiring the installation of a new mine plant,

would necessitate a cutoff grade of approximately 0.20 oz of gold per ton over mineable widths before a viable mining operation could be undertaken.

W E L S H P R O P E R T Y

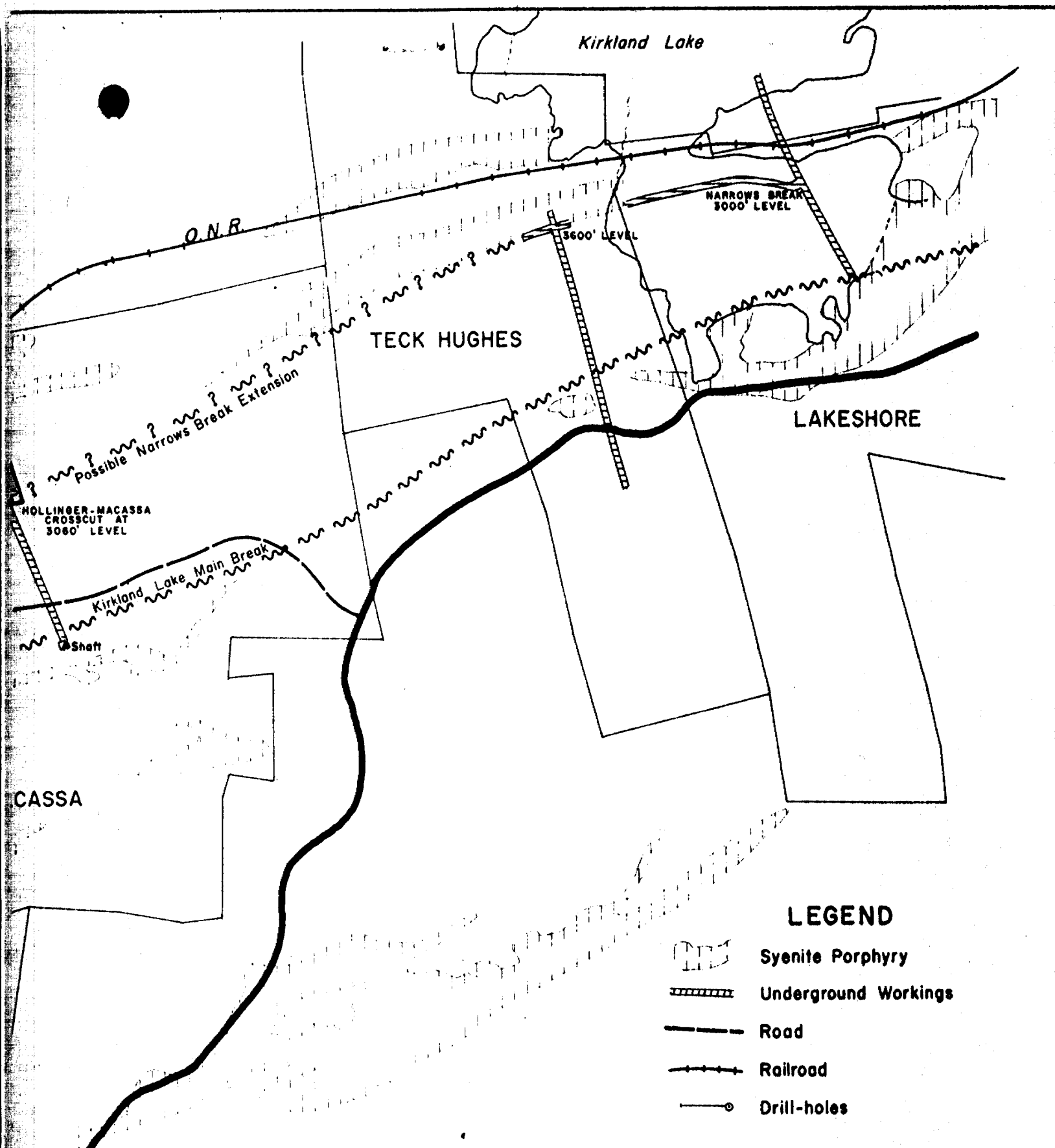
The Welsh property is located in an area of Kirkland Lake camp which has reasonable possibilities of discovery of commercial quantities of gold ore. Gold values over narrow widths have been identified at the 3000 ft level of one claim; all but one of the claims has large expanses of syenite porphyry exposed on surface; and, finally, one major break (Narrows) plus two other breaks can be interpreted to intersect the claims. These three favourable factors are met by few other areas in the Kirkland Lake camp.

The Welsh claims lie approximately 2000 ft north of the Main Break although the south-easterly corner of Claim No. 342857 lies within 200 ft of the Main Break on surface. Exposed on surface throughout the claims are numerous wide spread outcrops of syenite porphyry which when interpreted geologically produces an area of syenite porphyry which occupies almost 80 acres. This area of syenite porphyry is one of only two syenite porphyry masses which are exposed at surface north of the Main Break. The second porphyry area

is in the east end of the camp north of the Sylvanite property. Another large area of syenite porphyry is exposed at surface 4000 ft to the south of the Main Break at the west end of the camp.

Trenching was carried out on the Welsh claims between 1910 and 1940 but no adequate records were kept of the results. This trenching was not extensive due to the large expanses of swamp which cover the area. In summary, it can be said that from a surface standpoint the syenite porphyry exposed on the Welsh claims has never been adequately explored and what work was done is no longer available for review.

Drill hole (S.C.1) completed by Hollinger Gold Mines Limited in 1941 is the only drill hole oriented to test the syenite porphyry at depth. It was drilled from the boundary between Claim No. 342833 and No. 342832 and eighty feet north of the Macassa Boundary. The orientation was N 25° W and the dip was -20°. The drill hole intersected 435 ft of syenite porphyry in its total length of 900 feet. A number of quartz veins were intersected some with associated calcite and some with sulphides. Gold values were returned from these veins but no important intersections were made. The best intersections returned 0.06 oz of gold over 1.5 feet.



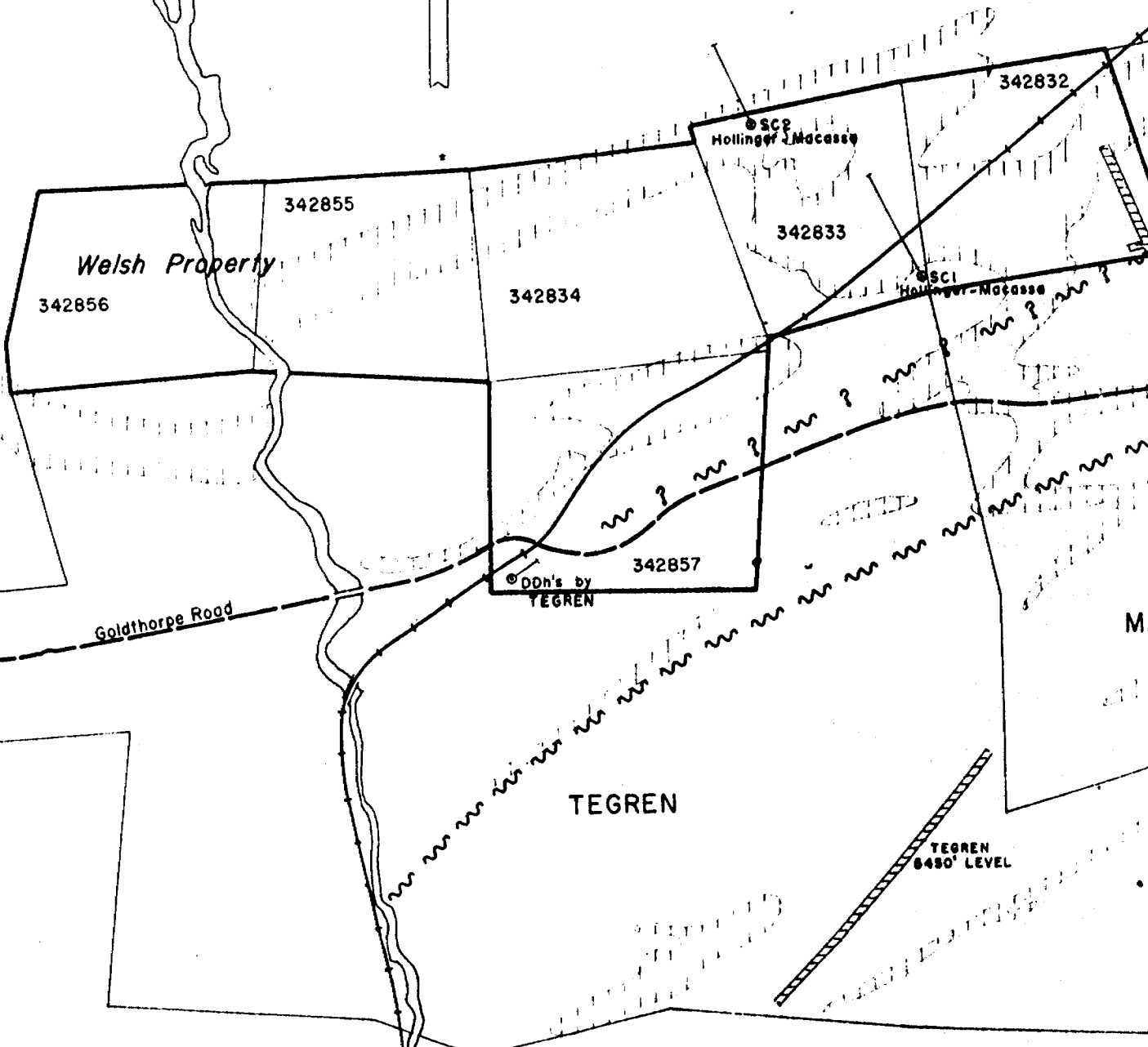
**GEOLOGY & MINE WORKINGS
WELSH PROPERTY
KIRKLAND LAKE, ONTARIO**

SCALE · 1000' = 1"

W. Riddell, P.Eng. Mar. 6 1974



N



342856
Welsh Property
342855

342834

SC2
Hollinger-Macasse

342833

SC1
Hollinger-Macasse

342832

342857

DDh's by
YEGREN

Goldthorpe Road

TEGREN

TEGREN
8450' LEVEL

MA

6

More adequate drilling of this porphyry mass is required plus another exposure located on Claim No. 342857.

The Narrows Break, from which some ore was produced at the Lake Shore Mine on the 3000 ft level, has been interpreted to extend into the Welsh property. A cross-cut on the 3000 ft level of the Macassa Mine, extending north into the most westerly claim of the Welsh property, intersected a strong break just inside the claim boundary which lines up almost perfectly with the intersections at the Teck-Hughes and Lake Shore properties. The Narrow Break is a structure to the north of the Main Break and although only a small quantity of ore was produced by Lake Shore from the veins associated with the Narrows Break the grade of the ore produced at Lake Shore is reported by Gustafson to be 0.2 oz per ton.

The two more northerly breaks identified by cross-cutting on the Lake Shore property and by drill holes on the Teck-Hughes property, and from surface and underground drill holes on the Welsh property, holds little immediate interest due to the fact that the gold values obtained from the drill hole completed by Hollinger in 1941 to test this structure on the Welsh property were of generally low tenor. Future work on these breaks may be justified but should not be considered as prime targets for exploration at this time.

The underground cross-cut driven on the 3000 ft level of the Macassa Mine into the easterly claim of the Welsh property passes through augite syenite for most of its length within Claim No. 342832, although numerous masses of syenite porphyry were also intersected. The Narrow Break was identified within Claim 342832 in a preliminary fashion close to the claim boundary of the Macassa property. Immediately to the north, and 45 ft, inside the Welsh property, a vein structure was intersected on which a total of 235 ft of drifting and cross-cutting, both east and west, was undertaken. Gold values were intersected throughout all of the working although none were of commercial value at the time. The vein was mapped geologically and interpreted to strike S 75° W and dip to the north at an angle of 50 degrees. Three underground drill holes, two horizontal and one down hole, were drilled to intersect the vein. Gold values were obtained and if interpreted correctly, confirm that the vein dips to the north. Examples of the gold values obtained in the sampling at vein are as follows:

<u>WEST</u>	<u>EAST</u>
0.020 oz over 5.7 feet	0.091 oz over 8.2 feet
0.033 oz over 5.7 feet	0.020 oz over 5.8 feet
0.052 oz over 5.4 feet	0.089 oz over 5.5 feet
0.085 oz over 5.6 feet	0.055 oz over 5.1 feet
0.106 oz over 4.2 feet	0.089 oz over 4.6 feet
0.104 oz over 6.2 feet	
0.139 oz over 6.5 feet	

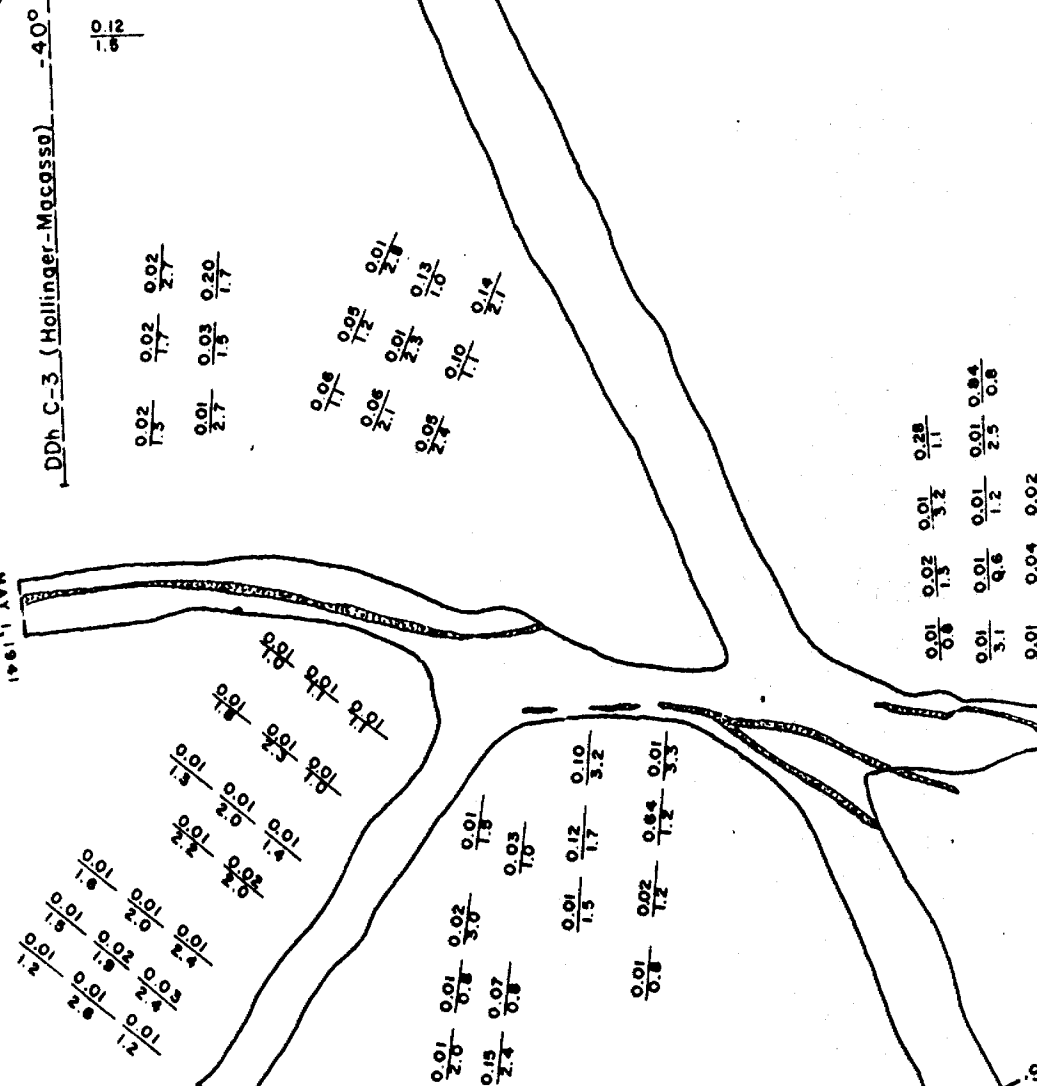
DDh C-4 (Hollinger-Macassa) horizontal

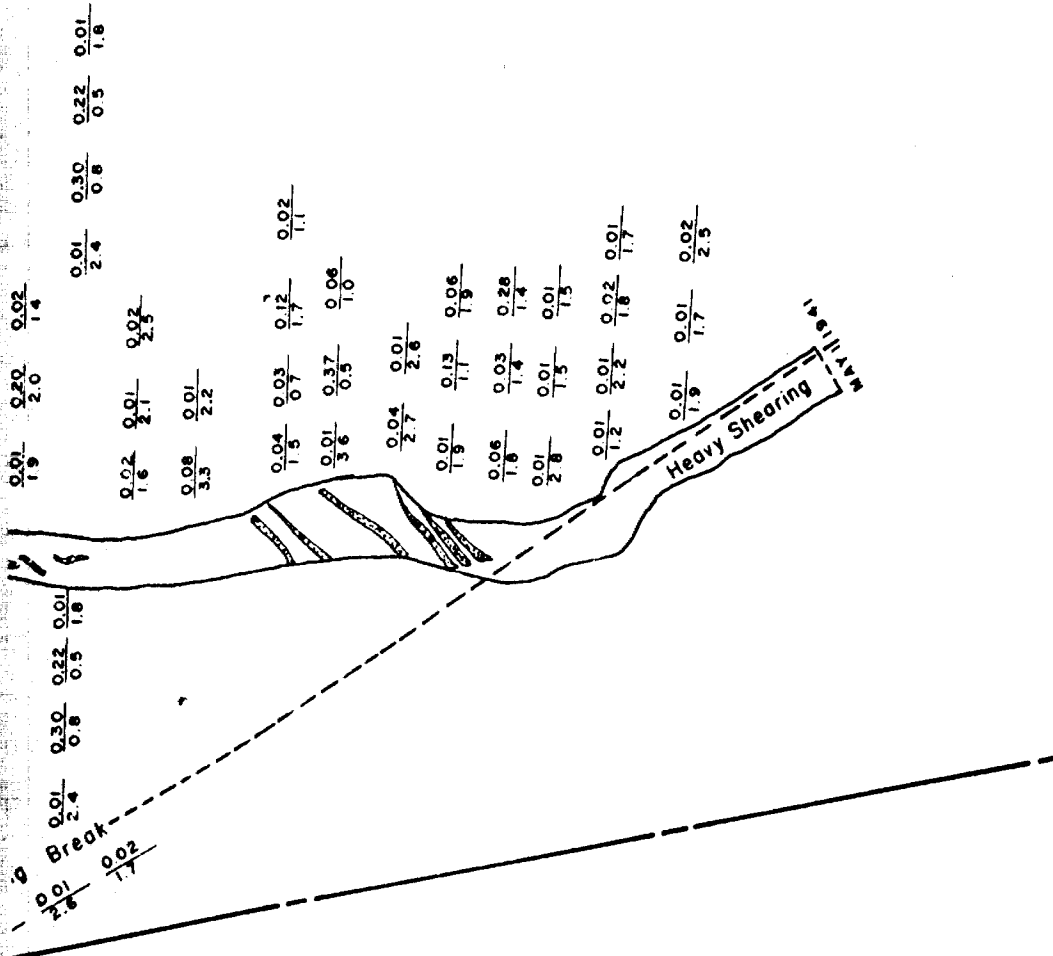
DDh C-3 (Hollinger-Macassa) -40°

MAY 1, 1941



MAY 1, 1941

Claim 342832
MACASSA Property





LEGEND

-  Veins
-  Assays / Widths

DEVELOPMENT ASSAY PLAN - 3000 ft LEVEL

**WELSH PROPERTY
KIRKLAND LAKE, ONTARIO**

SCALE : 20' = 1"

W. Riddell, P. Eng. Mar. 6 1974



The results of the underground drilling are as follows:

Hole C-2	0.25 oz over 1.5 feet
Hole C-3	0.12 oz over 1.5 feet
Hole C-4	0.06 oz over 1.5 feet

C O N C L U S I O N S

The Welsh property is one of the better exploration targets in the Kirkland Lake camp. Few other contain as many positive conditions conclusive to the discovery of a commercial deposit of gold ore.

The large amount of syenite porphyry exposed on surface within the property is indicative that a large mass of this type of rock underlies the claims. The claims have never been adequately explored in the past either by diamond drilling or surface trenching. Syenite porphyry is the favourable host rock for gold bearing quartz veins in the Kirkland Lake camp and an examination of the porphyry to a depth of 1000 ft on Claim 342832, 342833, 342834 and 342857 is warranted. Additional sampling of the old trenches on surface is also warranted employing a grab sampling method initially followed by dewatering of the trenches and proper channel sampling if the results of the grab sampling are positive.

The Narrows Break, which has been identified on the Lake Shore and Teck-Hughes property can reasonably be interpreted to pass through the Welsh property. Commer-

cial quantities of gold ore ^{have} has been produced from veins related to the Narrows Break at the Lake Shore Mine and this fact combined with the syenite porphyry rock exposed at surface on the Welsh claims combines to make the exploration of the property fully justified.

A gold bearing vein was intersected and explored in a cursory manner at the 3000 foot level on Claim 342832. The vein strikes at a somewhat different azimuth as the Main Break but numerous good grade gold assays (0.22 oz over 0.5 ft; 0.64 oz over 1.2 ft; 0.37 oz over 0.5 ft) were obtained over narrow widths. Over mining widths one composite assay returned 0.139 oz of gold over a width of 6.5 feet. Additional underground drilling is warranted to explore the westerly extension of this vein to confirm its dip to the north and to search for commercial quantities of gold ore.

It should be noted that generally the gold ore mined at the west end of the Kirkland Lake camp on the Main Break has occurred at depth. The porphyry to be investigated on the Welsh claims is not directly related to the Main Break and exploration should be directed to the possibility of finding commercial quantities of gold ore at relatively shallow depths. The Narrows Break has not been a profitable producer of ore in the Kirkland Lake Camp but some production has been recorded

and at the current price for gold further exploration is fully warranted. It should also be noted that one surface drill hole completed by Hollinger in 1941 attempted a similar investigation of the porphyry and its relation to a possible 'break' on Claim 324833 without any notable success. The hole was a relatively shallow hole (900 feet at -20°) and it is warranted to continue exploration at lower depths both east and west of this hole.

The gold bearing vein dipping to the north which was explored at the 3000 foot level of Claim No. 342832 is somewhat incongruous when compared to the other gold bearing veins throughout the camp which generally dip to the south. Exploration is justified however to confirm or reject the possibility of discovering commercial quantities of gold ore in an area of the Kirkland Lake camp where the geological structure may not be directly related to the Main Break.

In summary, both underground and surface exploration is warranted on the Welsh property to investigate the possibilities of finding commercial quantities of gold ore above the 3500 foot level.

R E C O M M E N D A T I O N S

In view of the foregoing conclusions it is recommended that the Welsh claims be explored by surface grab sampling, and both surface and underground diamond drilling. The proposed programme will involve approximately 5200 feet of underground drilling and 3200 feet of surface drilling. Verbal permission has been received from Mr. J. H. Botsford, Manager at the Macassa Mine, that the underground cross-cut on the 3000 foot level of the Macassa Mine can and will be rehabilitated in preparation for the proposed underground drill programme.

Further drilling after completion of the proposed programme will be dependent on the results obtained.

In summary the proposed drilling programme is as follows:

Hole No.	Location	Azimuth	Length Ft	Dip
<u>Underground</u>				
1	North end of Cross- cut	232°	1300	Flat
2	North end of Cross- cut	218°	950	Flat
3	North end of Cross- cut	195°	750	Flat
4	North end of Cross- cut	223°	950	-12°
5	North end of Cross- cut	207°	750	-16°
6	North end of Cross- cut	212°	500	-50°
	Total		<u>5200</u>	
<u>Surface</u>				
7	Outcrop 500' NE of Hollinger Hole SC1	325°	1300	-40°
8	Outcrop 500' West of Hol- linger Hole SC1	335°	800	-40°
9	Outcrop NE segment of Claim 342857	335°	1100	-40°
			<u>3200</u>	
	Grand Total		<u>8400</u>	

The total cost of the recommended programme will amount to approximately \$66,900 based on provisional quotations recently received from a Northern Ontario drill contractor and estimates of other additional work required to complete the programme.

C O S T E S T I M A T E

Cross-cut Preparation (by Macassa)	\$ 3,000.00
5200 ft of Underground Drilling at \$5.50/ft including mobilization	28,600.00
3200 ft of Surface Drilling at \$9.00/ft including mobilization	28,800.00
Surface Investigation and Grab Sampling	1,000.00
Assaying	1,000.00
Technical Supervision and Consulting including travel, communication support and contingencies	4,500.00
	<hr/>
Total	\$ <u>66,900.00</u>

B I B L I O G R A P H YPublic Reports

Jas. E. Thomson

"Regional Structure of the Kirkland Lake-Larder Lake Area" Structural Geology of Canadian Ore Deposits, Cdn. Inst. Min. Met., Symposium Volume 1948, pp 627-632

W. Ward, O.S. Perry, K. Griffin, G.H. Charlewood, H. Hopkins, G. McIntosh, and S.P. Ogryzlo

"The Gold Mines of Kirkland Lake," Structural Geology of Canadian Ore Deposits, Cdn. Inst. Min. Met., Symposium Volume, 1948, pp 644-653

Jas. E. Thomson

"Geology of Teck Township and the Kenogami Lake Area, Kirkland Lake Gold Belt," Ont. Dept. Mines, 57th Annual Report, Vol. LVII, Part V, 1948, pp 1-53

Jas. E. Thomson, and G.H. Charlewood, K. Griffin, J.E. Hawley, Harold Hopkins, C. G. MacIntosh, S.P. Ogryzlo, O.S. Perry, Wm. Ward,

"Geology of the Main Ore Zone at Kirkland Lake" Ont. Dept. Mines, 57th Annual Report, Vol. LVII, Part V, 1948, pp 54-188

Unpublished Reports

Campbell, D.A., "Report on Barnette Legris claims, Teck Township" Report to Erie Canadian Mines Ltd. 1934

Langford, G.B., "Report on the Casakirk Property, Kirkland Lake, Ontario." Report to Casakirk Gold Mines Ltd., 1939

Gustafson, J.K., "Report on Casakirk Gold Mines Limited, Kirkland Lake, Ontario" Report to Hollinger Exploration Co. Ltd., 1940

Gustafson, J.K. "Second Report on Casakirk Gold Mines Limited, Kirkland Lake, Ontario" Report to Hollinger Exploration Co. Ltd., 1941

Other Information

Assessment file of Tegren Goldfields Ltd. concerning
two drill holes completed on Claim 342857

Detailed geological maps and assay plans of 3000 ft
level cross-cut from Macassa Division of Wilroy
Mines Limited

Northern Miner Press Reports, 1965-1973